## AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

## LISTING OF CLAIMS

1-25. (Canceled)

26. (New) An object recognition apparatus, comprising:

a plurality of cameras that each take an image of an object and obtain image data of said object;

a plurality of databases that are each associated with one of the plurality of cameras and that each have registered therein a plurality of model data concerning object models;

a search range focusing section that narrows down an area in each image data where a corresponding object is likely to exist and makes said area a search range; and

an object recognition section that compares the image data in the search range in each image data with the plurality of model data in the corresponding database, detects model data presenting a highest similarity to the image data, and detects the object in the image data using said model data,

wherein the object recognition section is provided for common use by the plurality of cameras.

27. (New) The object recognition apparatus of claim 26, wherein the plurality of databases each have registered therein a plurality of feature vectors obtained by multiplying the image data from the corresponding camera by a feature extraction matrix provided for extracting features of a predetermined object, and

the object recognition section compares a plurality of feature vectors obtained by multiplying the image data in the search range in each image data with the plurality of feature vectors in the corresponding database and detects a feature vector in the database presenting a highest similarity with the object said feature vector represents.

28 (New) The object recognition apparatus of claim 26, wherein the plurality of databases are associated with respective conditions and the object recognition section selects between the plurality of databases depending on the conditions.

29. (New) The object recognition apparatus of claim 28, wherein the conditions comprise at least one of a distance between each camera and object, a direction of the object with respect to the camera, weather, and time of day.

30. (New) An object recognition apparatus, comprising:

a plurality of cameras that each generate image data;

a plurality of databases that store model object data, each database being associated with one of the plurality of cameras;

a search range focusing section that selects a reduced portion of the image data; and

an object recognition section that compares the selected portion of the image data to the stored model object data, selects stored model object data that has a highest similarity to the selected reduced portion of the image data, and detects an object from the image data using the selected model object data.

31. (New) The object recognition apparatus of claim 30, wherein each of the plurality of databases stores a plurality of model feature vectors, each model feature vector obtained by multiplying model image data by a feature extraction matrix configured to extract features of a predetermined object, and

the object recognition section generates an integrated vector based on the selected reduced portion of the image data, multiplies the integrated vector by the feature extraction matrix to generate an object feature vector, and selects a model feature vector having a highest similarity to the object feature vector.

32. (New) The object recognition apparatus of claim 30, wherein each of the plurality of databases are associated with different predetermined conditions, and the object recognition section selects one of the plurality of databases based upon the occurrence of a predetermined condition.

33. (New) The object recognition apparatus of claim 32, wherein the conditions comprise at least one of a distance between a camera and an object, a direction of an object with respect to a camera, weather, and time of day.

34. (New) A method for recognizing an object, comprising:

generating image data with one of a plurality of cameras;

selecting a reduced portion of the image data;

selecting a database from a plurality of databases, the selected database being associated with a camera that generated the image data;

comparing the selected portion of the image data to model object data stored in the selected database;

selecting the stored model object data that has a highest similarity to the selected portion of the image data; and

detecting an object from the image data using the selected stored model object data.

35. (New) The method of claim 34, further comprising;

obtaining a plurality of model feature vectors by multiplying model image data by a feature extraction matrix configured to extract features of a predetermined object;

storing a plurality of model feature vectors in each of the plurality of databases;

generating an integrated vector based on the selected portion of the image data;

multiplying the integrated vector by the feature extraction matrix to generate an object feature vector; and

selecting a model feature vector having a highest similarity to the object feature vector.

36. (New) The method of claim 34, wherein each of the plurality of databases are associated with different predetermined conditions, and a database is selected from the plurality of databases based upon the occurrence of a predetermined condition.

37. (New) The method of claim 36, wherein the condition comprises at least one of a distance between a camera and an object, a direction of an object with respect to a camera, weather, and time of day.